DEPARTMENT OF ENVIRONMENTAL QUALITY Environmental Assessment

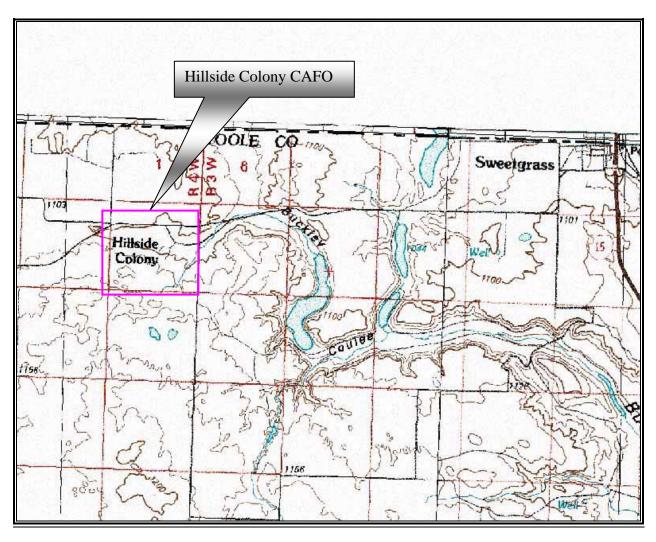
Permitting and Compliance Division Water Protection Bureau

Name of Project: <u>Hillside Colony</u>

Type of Project: <u>CAFO Permit</u>

Location of Project: Section 12, Township 37N, Range 4W

City/Town: Sweetgrass County: Toole County



Description of Project: (Summary of Proposed Action): Hillside Colony is an existing, privately owned livestock operation that confines 8580 swine (55 lbs or over), 2700 swine (under 55 lbs), 130 mature dairy cows, 100 heifers, 60 steers (intermittently), 200 turkeys (intermittently), 800 broilers, 12,000 layers, and 800 ducks (intermittently). The operation

utilizes 8.5 acres for facilities and pens. Upon receipt of CAFO permit coverage, the Colony intends to construct improvements to its existing waste disposal system. Plans and specifications for this construction have been submitted as part of the CAFO permit application. As part of the planned improvements, the Colony will construct and operate a solids separator that will remove most of the solids from the liquid waste produced in conjunction with the hog, dairy and poultry operation, a manure/dead animal composting pad to handle the solids from the separator, a new, clay-lined liquid waste retention pond and associated piping to store the liquid waste from the separator, a concrete cistern and associated piping to receive and convey liquid wastes from the hog, dairy and poultry confinement areas, and a synthetic-material-lined runoff retention pond in which to store contaminated runoff from the open confinement cattle pens. Due to the presence of shallow bedrock in the area, the Colony has requested a deviation be granted from the Department Circular DEQ 9 design standard which states, "A minimum separation of 10 feet between the pond bottom and any bedrock formation must be maintained." The deviation has been requested according to the procedures outlined in the "Foreward" (page 4) of DEQ 9, and is subject to the public notice procedures identified therein. Liquid waste will be applied at agronomic rates to cropland owned and operated by the Colony, using a tanker truck. Manure solids will be composted along with dead livestock and then applied at agronomic rates to cropland owned and operated by the Colony via a manure spreader. The nearest down-gradient surface water to the production area is Buckley Coulee. The Colony's livestock operations are staffed by colony members living on-site, and reclamation is not planned for the facility. Hillside Colony has not previously been permitted for discharge, and now seeks permit coverage under the Montana Pollutant Discharge Elimination System (MPDES).

Agency Action and Applicable Regulations: The proposed action is to issue an authorization to discharge under the Montana Pollutant Discharge Elimination System (MPDES), Concentrated Animal Feeding Operation (CAFO) General Discharge Permit to Hillside Colony. As part of this authorization, a deviation would be granted from the specific design criteria in Department Circular DEQ 9 which states, "A minimum separation of 10 feet between the pond bottom and any bedrock formation **must** be maintained." This authorization and associated deviation would be granted under the authority of the Montana Water Quality Act 75-5-101 *et seq.* and the Montana Pollutant Discharge Elimination System ARM 17.30.12 *et seq* and ARM 17.30.13 *et seq.*, and according to the required public notice procedures for deviations from the design criteria in DEQ 9, as outlined in DEQ 9. The facility does not have MPDES discharge permit coverage at this time. The operator of Hillside Colony has the responsibility for identifying and acquiring any other permits or authorizations he may need in order to construct and operate the facility.

Summary of Issues: Discharges to state waters may have the potential to adversely impact water quality, as well as flora and fauna, and the human environment. However, the terms and conditions of the MPDES, CAFO General Discharge Permit (General Permit) explicitly prohibit significant, adverse impacts to such resources as a result of discharges to state waters. Authorization under the General Permit puts in place a regulatory mechanism for protecting the natural and human resources of the State of Montana from adverse impacts associated with the operation of Hillside Colony. Without authorization, the facility could be upgraded and operated, though not as currently proposed in the Short Form B submitted by the facility. (The

facility would not be able to have as many animals in confinement and would have to come up with an alternate method of handling waste.)

A waste disposal facility located in an area of shallow bedrock can pose additional risks to water quality. Fractures and instability in bedrock can create preferential flow channels capable of carrying wastewater from discharges, swiftly down into groundwater. The designer of the Hillside Colony waste disposal system has identified the underlying bedrock as geologically stabile sandstone, and has proposed to line the large liquid waste storage pond with a 24" thick compacted clay liner to prevent leakage to groundwater. In addition, the designer has incorporated the use of a solids separator to help reduce the overall volume of waste that must be stored in the large, liquid waste storage pond overlaying an area of shallow bedrock. The only other available site for the storage pond where shallow bedrock isn't a problem is an area approximately one mile from the facility. If this site were to be used, waste would either have to be truck-hauled on a county road, or piped along the edge of Buckley Coulee.

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur (explain under Potential Impacts). Include frequency, duration (long or short term), magnitude, and context for any significant impacts identified. Reference other permit analyses when appropriate (ex: statement of basis). Address significant impacts related to substantive issues and concerns. Identify reasonable feasible mitigation measures (before and after) where significant impacts cannot be avoided and note any irreversible or irretrievable impacts. Include background information on affected environment if necessary to discussion.

N = Not present or No Impact will likely occur. *Use negative declarations where appropriate (wetlands, T&E, Cultural Resources).*

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND
	MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N] The soil at the site is composed primarily of clay loams and calcareous clay loams, with a much lesser amount of fine sandy loams (Farnuf clay loam, 0-3% slopes; Vida-Vida, calcareous-Williams clay loams, 3-8% slopes; Vida, calcareous-Williams-Zahill clay loams, 4-15% slopes; Vida-Zahill clay loams, 8-25% slopes; and Cabba-Dast fine sandy loams, 25-45% slopes according to data from the Natural Resources Conservation Service, or "NRCS"). The slopes upon which facility structures exist or are planned generally range from 0 to 8 percent slopes, the exception being the location along a planned waste transfer pipe that will need to cross a ravine. Also according to the NRCS, the majority of the soils on site are in a wind erodability group (WEG) of 6, and have a whole-soil K-factor (from the Revised Universal Soil Loss Equation) of 0.32 to 0.37. The Colony plans to install a runoff retention pond to help prevent water erosion from carrying sediments off site and into state waters. The majority of the facility"s confinement areas will either be enclosed or surfaced, thereby eliminating the opportunity for

IMPACTS ON THE PHYSICAL ENVIRONMENT

significant soil loss. Run-on collection ditches will be used to prevent run-on water from entering the open confinement areas and becoming contaminated. Earthen berms and a stormwater collection pond will be used to collect and control contaminated runoff from the open confinement areas.

The USGS Quaternary Fault and Fold Database suggests that there are no fault lines within at least 30 miles of Hillside Colony. The proposed site for the new liquid waste storage pond is on a gently sloping bench above the headwaters to Buckley Coulee. Depth to bedrock is less than 7 feet according to test holes dug in the vicinity. Siting of the pond over shallow bedrock requires that the person designing the project submit appropriate technical justification for deviating from the minimum 10 feet to bedrock design standard in Department Circular DEQ 9 (DEQ 9). Information submitted by the project engineer, both orally and in writing, shows the underlying bedrock is geologically stabile and non-fractured, and that a 2 foot thick, compacted clay liner will be installed to further inhibit wastewater from reaching state waters. No unusual or unstable geologic features will be impacted by Hillside Colony or its proposed new construction. There are no plans for reclamation of the site.

2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?

[N] The nearest potential state surface water is Buckley Coulee, whose headwaters run between the proposed liquid waste storage pond and the cattle corals. Buckley Coulee is an intermittent stream that outlets to a series of alkali flats near the town of Sunburst. Montana. Buckley Coulee is part of the Marias River drainage, HUC 10030203. The CAFO General Discharge Permit requires the facility to be designed, constructed and operated to contain all process wastewater, plus the runoff and direct precipitation from a 25-year, 24-hour precipitation event. The Permit establishes effluent limitations for discharges to surface and ground waters, as well as a regulatory mechanism to enforce these limitations. The proposed liquid waste storage pond will be lined with a 24 inch compacted clay liner, compacted to 95% maximum Proctor density. The proposed stormwater collection pond will be lined with a 40 MIL LLDPE synthetic liner overlain by 1 foot of cover soil. Berms and ditches will be installed to prevent clean run-on water from becoming contaminated and to divert and contain contaminated runoff water so that it does not reach state surface waters. The Montana Groundwater Information Center's well log data identifies 4 groundwater wells within ½ mile of the Colony, and 8 groundwater wells within roughly a mile radius of the Colony. Water quality sampling and analysis conducted using two of the Colony's wells indicates that the groundwater beneath the facility is Class III groundwater according to the classification system outlined in ARM 17.30.1006. The quality of these Class III groundwaters must be maintained so that these waters are at least marginally suitable for the following beneficial uses:(i) irrigation of some salt tolerant crops; (ii) some commercial and industrial purposes; (iii) drinking water for some livestock and wildlife; and (iv) drinking, culinary, and food processing purposes. Pertaining to these waters, it is illegal to cause a violation of the human health standards set forth in DEQ 7, and for concentrations of parameters for which human health standards for ground water are not listed in DEO-7, no increase of a parameter to a

IMPACTS ON THE PHYSICAL EN	VIRONMENT
	level that renders the waters harmful, detrimental, or injurious to the beneficial uses listed above is allowed. The nondegradation provisions of 75-5-303, MCA do not apply to these groundwaters. The proposed waste storage structures will be located at least 500 feet from all wells. The terms and conditions of the MPDES, CAFO General Discharge Permit expressly prohibit significant, adverse impacts to surface and ground water resources. Granting a variance to the depth to bedrock standard in DEQ 9 would enable the Colony to construct the waste storage pond in an area close to the facility where it could be more easily monitored and controlled. In choosing the proposed site for the waste storage pond, the Colony attempted to find a site that would meet the depth to bedrock standard. The nearest available site is more than a half mile away from the confinement areas, and is located on permeable alluvial soils. In order to use this site, the Colony would either need to install a ½ mile long waste transfer pipeline along the edge of Buckley Coulee, or haul the waste by tanker truck on a nearby county road, increasing the opportunity for spillage and discharge.
AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)? 4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N] There may be some odors associated with the operation of the proposed upgrades to the facility's waste disposal system. However, the proposed upgrades will be constructed in a sparsely populated, rural, agricultural area. Data from the NOAA Western Regional Climate Center suggests that the prevailing winds come out of the west/southwest. The nearest residence to the east/northeast is 3.2 miles away. Proper facility operation and application of collected waste may reduce the potential for odor problems. No significant impacts to air quality are expected. [N] Construction of the proposed upgrades to the waste disposal system will necessitate the disturbance of some rangeland vegetation. The Montana Natural Heritage Program's Element Occurrence database does not identify any rare or endangered plant species as being present within the proposed disturbance area. The remainder of the facility is already in existence. No negative impacts to rare
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of	plants, cover types, or significant vegetative communities are expected. If the operator of the facility discovers any rare plants or cover types, he is encouraged to contact the Montana Natural Heritage Program for further guidance. [N] The proposed facility will be located in a predominantly agricultural area. The Montana Natural Heritage Program's Element
the area by important wildlife, birds or fish?	Occurrence database does not identify any rare or endangered animal species as being present within the proposed disturbance area for the planned upgrades to the waste disposal system. The remainder of the site is already in existence. No significant impacts to wildlife habitat are expected. The conditions of the CAFO General Discharge Permit require the facility to be constructed and managed to help protect state waters from pollution. State waters are a key part of Montana's terrestrial, avian and aquatic life habitats. If the operator of the facility discovers any rare or endangered wildlife at the facility, he is encouraged to report the sighting to the Montana Natural Heritage Program, or to the Montana Department of Fish, Wildlife and Parks.

IMPACTS ON THE PHYSICAL EN	VIDONMENT
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] The Montana Natural Heritage Program's Element Occurrence database does not identify any plant or animal species of concern as being present at the site. If the operator of the facility discovers any federally listed threatened or endangered species or habitat, he is encouraged to contact the Montana Natural Heritage Program. The terms and conditions of the CAFO General Discharge Permit set limits on discharges of wastes to wetlands.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] The State Historic Preservation Office (SHPO) conducted a cultural resource file search for the location of Hillside Colony and the proposed disturbance area for the upgrades to the waste disposal system. SHPO concluded that they "felt that there is a low likelihood cultural properties will be impacted," and "that a recommendation for a cultural resource inventory is unwarranted at this time." Therefore, no significant impacts to historical, archaeological or paleontological resources are expected. If Hillside Colony discovers any historical or archaeological sites at the facility, they are urged to contact the State Historic Preservation Office of the Montana Historical Society.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] The facility is already in existence. The proposed waste storage pond and runoff retention pond would be visible from Loop Road and West Sweetgrass Road. Both of these roads are rural roads with limited traffic. The only residences within sight of the ponds are those owned by the Colony. The entire facility is located in a sparsely populated, rural agricultural area. No impacts on aesthetics are expected.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerline or other energy source be needed)	[N] The facility is already in existence. Construction and operation of the proposed facility upgrades would create additional demands for energy (to run the separator). However, sufficient resources are already available in the area. The proposed new construction is planned for land owned and operated by the Colony, in an area of the state where land is plentiful. Hillside Colony is responsible for obtaining all necessary permits and approvals in order to operate their existing facility and in order to construct and operate the proposed upgrades to the waste disposal system. Adequate air resources are available at the site. No negative impacts are expected. No significant impacts on water resources are expected as a result of issuing an authorization under the CAFO General Permit to this facility, or as a result of issuing the proposed variance to the DEQ 9 depth to bedrock design standard.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] No negative impacts are expected.

IMPACTS ON THE HUMAN ENVI	RONMENT
RESOURCE	[Y/N] POTENTIAL IMPACTS AND
RESOURCE	MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] The site is located in a sparsely populated area. As such, there will be minimal potential for human contact with the facility (other than that associated with facility operators). The confinement areas are either enclosed within buildings or enclosed within fences, further minimizing the potential for human contact with the waste stream and with the cattle. The proposed waste storage pond and the proposed runoff retention pond will have perimeter fencing. The terms and conditions of the CAFO General Permit help to protect the quality of state waters, thereby helping to protect the health and safety of the public who use state waters.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] Facility is already in existence. Construction and operation of the proposed waste disposal system upgrades would help provide continuing employment for the members of Hillside Colony, but will not add to or significantly alter industrial, commercial or agricultural activities in the area. No negative impacts on agricultural production are expected as a result of issuing an authorization to the Colony to discharge under the CAFO General Permit or as a result of granting a variance to the depth to bedrock standard in DEQ 9.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number. 14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] The facility is already in existence. No negative impacts to local employment characteristics are expected as a result of issuing an authorization to discharge under the CAFO General Discharge Permit. [N] The facility is already in existence, and no increase in agricultural production is expected as a result of issuing an authorization under the CAFO General Permit to this facility, or as a result of issuing a variance to the depth to bedrock standard from DEQ 9. Therefore, no
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	changes to the state tax base and tax revenues are expected. [N] The facility is already in existence. There may be a temporary increase in local road traffic as a result of the proposed construction activities. However, this is expected to be of short duration and limited in extent. Local roads are currently capable of handling the increase in traffic. As such, no significant impacts are expected.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] No locally adopted environmental plans or goals have been identified. Hillside Colony is responsible for obtaining all necessary permits and permissions from other state, federal, county, city, etc. organizations. The proposed facility would not be located on Tribal lands.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] The facility is already in existence. Construction and operation of the proposed upgrades to the waste disposal system would not affect wilderness or recreational areas. There are no wilderness or recreational areas accessed through the facility site. No impacts are expected as a result of the proposed action.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] The facility is already in existence. Operation of the existing facility and construction of the proposed upgrades to the waste disposal system will not add to the population and will create a need for additional housing. As such, no impacts on the density and distribution of population and housing are expected.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] The facility is already in existence. The proposed construction of upgrades to the waste disposal system will take place in an already predominantly agricultural area. No new impacts are expected as a result of the proposed action.

IMPACTS ON THE HUMAN ENVI	RONMENT
RESOURCE	[Y/N] POTENTIAL IMPACTS AND
	MITIGATION MEASURES
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] The facility is already in existence. No new impacts are expected as a result of the proposed action.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] No negative impacts are expected as a result of the proposed action.
22(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N] The MPDES CAFO General Permit imposes an obligation on the facility to prevent adverse effects to state waters, which constitutes a regulation of private property under the police powers of the state. The permit implements the Water Quality Act, Title 75, Chapter 5, MCA.
22(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	[N] The permit conditions do not interfere with the permittee's ability to use its private property. The conditions do require the permittee to implement design and management practices to prevent adverse effects to state waters.
22(c). PRIVATE PROPERTY IMPACTS: If the answer to 21(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[NA]

23. Description of and Impacts of other Alternatives Considered:

- A. No Action: Under the 'No Action' alternative the Department would not grant a deviation from the specific design criteria in DEQ 9 and would not issue a MPDES Permit Authorization. If no action were taken, the facility could still be operated and upgrades to the waste disposal system could still be made, although not as currently proposed. If discharges from the facility occurred they would be in violation of the Water Quality Act. There would be no mechanism to implement measures to prevent and control discharges from the facility. The proposed action will have environmental benefits compared to leaving the facility unpermitted.
- B. Approval with modification: According to the information submitted by Hillside Colony as part of the MPDES permit application process, the facility and the proposed upgrades to the waste disposal system would be capable of meeting the requirements of the MPDES, CAFO General Discharge Permit. Also, the person designing the upgrades to the waste disposal system has presented technical justification for a deviation from the depth to bedrock design requirement in DEQ 9. As such, the only modification necessary will be to require that the facility submit

Discharge Monitoring Reports on the form, by the date, and as requested by the Department.

- 24. Summary of Magnitude and Significance of Potential Impacts: Impacts were assessed with the assumption that the facility would be constructed and operated as described in the application materials submitted by Hillside Colony, and with the assumption that the facility would comply with the terms and conditions of the MPDES, CAFO General Discharge Permit. The Permit specifically prohibits significant adverse impacts to state surface and ground waters. Based on the information submitted to and/or gathered by the Department as part of the MPDES permit application process for Hillside Colony, the facility would be capable of meeting the terms and conditions of the Permit. Therefore, potential impacts of issuing an authorization under the MPDES, CAFO General Discharge Permit to the facility are not of sufficient magnitude so as to be considered significant. Also, the designer of the upgrades to the Hillside Colony waste disposal system has submitted technical justification for a deviation from the depth to bedrock design standard in DEQ 9. The technical justification shows that appropriate safeguards and site conditions will be taken advantage of in order to prevent discharges to state waters from occurring via preferential flow channels in the underlying bedrock. As such, no significant impacts are expected as a result of granting a deviation as proposed.
- 25. Cumulative Effects: The issuance of this MPDES permit would not have cumulative effects because the permit prohibits all discharges that would cause or *contribute* to a violation of Montana water quality standards. Granting a deviation from the depth to bedrock requirements in DEQ 9 would not have cumulative effects because appropriate design elements and site conditions are proposed or in place to prevent negative impacts to state waters as a result of the proposed deviation.
- 26. Preferred Action Alternative and Rationale: The preferred action is to approve with modification an authorization under the MPDES, CAFO General Discharge Permit for Hillside Colony, and to grant a deviation from the depth to bedrock design standard in DEQ 9 as requested by the designer of the upgrades to the Colony's waste disposal system. In so doing, the Department will specify and require implementation of effluent limits and controls necessary to prevent and/or control discharges from the facility to state waters.

Recommendation for Further Environmental Analysis:

EIS	More Detailed EA	X No Further Analysis
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Rationale for Recommendation: No significant impacts are expected from the proposed action.

27. Public Involvement: Department Circular DEQ 9 was adopted into the Administrative Rules of Montana (ARM) by the Board of Environmental Review (BER), [see ARM 17.30.1343(3)(c)]. The "Foreward" section of DEQ 9 states that "any deviation from the listed design criteria must be approved by the Department and is subject to the public notice procedures of the Montana Pollutant Discharge Elimination System permit."

Therefore, this EA will be public noticed according to the public notice procedures established in ARM 17.30.1372 through ARM 17.30.1378. Due to the minimal impact potential and minimal public interest associated with the proposed issuance of an authorization to discharge under the MPDES, CAFO General Discharge Permit, the Department will only be accepting comments on the proposed deviation from the depth to bedrock design criteria in DEQ 9. For copies of the EA, write or call the Montana Department of Environmental Quality c/o Mark Ockey, P.O. Box 200901, Helena MT 59620-0901, telephone (406) 444-5343. The Department maintains a list of persons who have expressed an interest in all environmental water quality related issues. The Department will send a copy of this document to all persons who have submitted their name, address, and telephone number to the Department for the purpose of being included on the water quality interested parties' mailing list.

28. Persons and agencies consulted in the preparation of this analysis:

Montana Natural Heritage Program (Topofinder I; Element Occurrence database)

Montana Groundwater Information Center (database)

Montana Historical Society (State Historic Preservation Office)

Montana Natural Resource Information System

MDEQ, Water Protection Bureau Staff (various)

Natural Resources Conservation Service (Soil Survey)

NOAA (Western Regional Climate Center)

EA Checklist Prepared By:

Mark Ockey, Water Quality Specialist MDEQ, Water Protection Bureau	Date	_
Approved By:		
Bonnie Lovelace, Chief MDEO, Water Protection Bureau	Date	